

KAFAROV, Viktor Vyacheslavovich. Prinimal uchastiye BOYARINOV, A.I.;
ALAVEROV, Ya.G., red.; MURASHOVA, V.A., tekhn. red.

[Fundamentals of mass transfer; the systems: gas - liquid,
vapor - liquid, and liquid - liquid] Osnovy massoperedachi;
sistemy gazzhidkost', par - zhidkost', - zhidkost' - zhidkost'.
Moskva, Vysshaya shkola, 1962. 654 p. (MIRA 16:3)
(Mass transfer)

MIKHIN, G.A.; VEKSLER, M.A.; BOYARINOV, A.I. Primali uchastiye: TAMONKIN, I.V.;
TEREKHIN, E.M.

Laboratory high-frequency automatic titrator. Zav.lab. 29 no.8.
1008-1009 '63. (MIRA 16:9)
(Conductometric analysis)

SUMDUK'YAN, G.S.; BOYARINOV, A.K., retsenzent; STARIKOV, A.Ya., retsenzent;
SIDOROV, A.G., redaktor; TSEPLYAYEVA, Z.S., redaktor; LABUS, G.A.,
tekhnicheskiiy redaktor

[Warehouse economy and principles of storing crude hides and furs]
Skladskoe khoziaistvo i osnovy khraneniia zhivotnovodcheskogo syr'ia
i pushniny. Moskva, Gos. izd-vo tekhn. i ekon. lit-ry po voprosam
zagotovok, 1953. 275 p. (MLBA 10:1)
(Hides and skins--Storage)

BOYARINOV, Aleksey Konstantinovich

[Commodity science of livestock products] Tovarovedenie zhivotnogo
sy'r'ia. Moskva, Tsentrosoiuz, 1957. 235 p. (MIRA 11:5)
(Hides and skins) (Animal products)

VINKMAN, M.K.; GINTSINGER, A.B.; POSPELOV, A.G.; POLETAYEVA, O.K.;
YEGOROVA, L.I.; ROMANENKO, M.F.; FEDYANINA, Ye.S.; ASTASHKIN, V.A.;
CHERNYSHEVA, S.V.; ROMANENKO, Ye.V.; ASKARINA, N.A.; BOYARINOV, A.S.;
NADLER, Yu.S.; GORELOV, G.F.

Scheme of the stratigraphy of Lower Cambrian and the lower part of
Middle Cambrian sediments in the Altai-Sayan fold area. Trudy
SNIIGGIMS no.24:23-34 '62. (MIRA 16:10)

BOYARINOV, A.S.

Szeczythus Vol. and Lucyathus Vol. genera. Mat.po geol.Zap.Sib.
no.63:14-15 '62. (MIRA 16:10)

BOYARINOV, Boris Yevgen'yevich; CHUPIS, Nikolay Maksimovich;
GORBENKO, V.L., kand. tekhn. nauk, otv. red.;
DEREVYANCHENKO, R.M., red.

[New metals, metal alloys and compounds and semiconductor materials] Novye metally, metallicheskie splavy i soedineniia i poluprovodnikovye materialy. Khar'kov, Izd-vo Khar'kovskogo univ., 1965. 60 p. (MIRA 18:12)

BOYARINOV, P.K., kand.vetnauk

Veterinary hygiene standards for planning establishments for
storing and processing raw material of animal origin. Trudy
VNIIVSE 13:60-77 '58. (MIRA 11:12)
(Veterinary hygiene) (Animal products)

Building mortar from oven hearth.

BOYARINOV, V. S.

AUTHORS:

Boyarinov, V. S. , Leonov, N. N. (Gor'kiy)

103-2- 2/9

TITLE:

On the Theory of a Relay System (K teorii odnoy releynoy sistemy)

PERIODICAL:

Avtomatika i Telemekhanika, 1958, Vol. 19, Nr 2, pp. 114-134 (USSR)

ABSTRACT:

Pointing at the insufficiencies and incorrectness of the works by Flügge-Lotz and Klotter (References 2 - 4) the authors investigated one of the models of relay systems of the same order, also investigated by Flügge-Lotz and Klotter, according to the method of the point-by-point transformation of a straight line into another straight line (Reference 5) with various types of relay characteristics. With sufficient idealization the theory of a series of relay systems of the second order, in which an effect not only according to the coordinate but also according to its first derivation is considered, can be traced back to the investigation of this theoretical model. Examples of such systems are: cross-stabilizing systems in a plane with V-shaped wing arrangement, stabilizing

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On the Theory of a Relay System

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system of the longitudinal motion with a constant angle of application in a rocket when its inertia is being neglected. The system is expressed by a non-linear differential equation ..

$$\ddot{x} + 2hx + \dot{x} = F(\psi), \quad \psi = x + k\dot{x}$$

with certain given (Figure 1) relay characteristics. h denotes any positive number (in References 2 - 4 there is $0 < h < 1$). k may have any sign. For this system an intensive investigation of the two-dimensional phase space is carried out by means of the diagrams of Kenigs-Lemeray, and specially, new data on the number and stability of limit cycles are obtained in comparison to those existing in technical publications. The parameter space was here divided into sections with similar reaction of the dynamic system in a qualitative respect. Chapter 1 : "The case of a constant spatial lagging" was written by N. N. Leonov. Chapter 2 : The case of a relay characteristic with an insensitive zone" was written by V. S. Boyarinov. In chapter 1 - two cases are investigated: Relay characteristics of form A and those of form B. In the case A the phase space of the system is formed by two half-planes partly placed on each other which are connected with each

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On the Theory of a Relay System

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other along the sections at the straight lines $\psi = \delta$ and $\psi = -\delta$. When the point describing the motion of system meets with these straight lines the relay is switched over and the point passes to the other half-plane. It is shown that in the case of the characteristics of form A the system, in dependence on the parameters and the initial conditions will either tend toward the state of equilibrium (1, 0) or (-1, 0) or that it will produce self-oscillations. - When the relay characteristic has the form B the point will in any case tend toward the stable limit cycle at $\delta < 1$. In all other cases (characteristics A and B at $\delta > 1$), in spite of the stable limit cycles, the representing point (izobrazhayushchaya tochka) is not secured with corresponding perturbances against hitting within the zone of attraction of special points. In chapter 2 - the characteristic of the non-linear element is assumed to be of form C (Figure 1). The phase space is divided into three domains G_1 , G_2 and G_3 which are connected with each other at the lines $\psi = \delta$ and $\psi = -\delta$. The solution consists of the investigation of several linear differential equations with a subsequent

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"adjustment" of the integration constant, starting from the continuity demand for x and y in the point of interruption of the right part of the differential equation system (21) describing the system. Such an adjustment is here carried out at the straight lines $\psi = \pm 0$. - Last the case where the relay characteristics has the form D (Figure 1) is investigated. Also here the investigation consists of point-by-point transformation of the straight line within itself. There are 16 figures, and 8 references, 3 of which are Slavic.

SUBMITTED: March 19, 1957

AVAILABLE: Library of Congress

1. Relay systems-Mathematical analysis

Card 4/4

BOYARINOV, V.S. (Gor'kiy); NEYMARK, Yu.I. (Gor'kiy)

Vibration of a shaft in ball bearing. Izv. AN SSSR. Mekh. no.3:
49-59 My-Je '65. (MIRA 18:7)

L 08502-67 EWT(m) JR

ACC NR: AP6034099

SOURCE CODE: UR/0089/66/021/004/0293/0294

AUTHOR: Mitenkov, F. M.; Boyarinov, V. S.

ORG: none

TITLE: Approximate description of the kinetics of a reactor during stability investigations

SOURCE: Atomnaya energiya, v. 21, no. 4, 1966, 293-294

TOPIC TAGS: reactor transient, reactor neutron flux, nuclear reactor characteristic

ABSTRACT: This is an abstract of paper No. 107/3597, received by the editor and filed but not published in full. The authors show that the stability characteristics of reactors can be obtained in much simpler fashion by replacing the six groups of delayed neutrons in the kinetic equations by one or two equivalent groups, whose parameters are chosen to approximate the variation of the neutron density within the same time interval. The article contains the corresponding equations for the parameters of the equivalent groups and a comparison of the limits of the stability regions for different numbers of equivalent groups and for different parameters. The calculations were made for very simple reactor models with automatic control and for self-regulating reactors. It is shown that the best choice of the parameters of the equivalent groups should minimize the deviation of the corresponding points of the amplitude-phase characteristics. If this is done, the calculated limits of the stability regions will be quite close to the limits calculated with six groups of delayed neutrons, even if a

1/2

UDC: 621.039.512

L 08502-67

ACC.NR: AF6034099

single equivalent group is used. Orig. art. has: 4 formulas.

SUB CODE: 18/ SUBM DATE: 29Jan66 / ATD PRESS: 5103

Card 2/2 afs

Boyarinova, H.P.

✓Effect of titanium on the properties of 15% chromium
60% nickel and of 20% chromium 90% nickel alloys.
A. P. Boyarinova, Moscow, 1977, 23 p., 11 figs.
With 11 figs. and 1 table. The author examines the effect of titanium on the properties of 15% chromium 60% nickel and 20% chromium 90% nickel alloys. It is shown that titanium increases the strength and plasticity of these alloys. The effect of titanium on the properties of these alloys is studied in the form of a solid solution and as an intermetallic compound. The results of the study are presented in the form of a table and 11 figures. The author concludes that titanium increases the strength and plasticity of these alloys.

1. named "Elektrostal"
(steel alloys - testing) (Lithuania)

BOYARINOVA, A.P., inzhener.; Malov, S.I., inzhener.

Reasons for unsatisfactory plasticity of iron-chromium-aluminum
resistance alloys. Stal' 17 no.3:280 Mr '57. (MIRA 10:4)

1. Zavod "Elektrostal".
(Iron-chromium-aluminum alloys--Electric properties)
(Plasticity)

Boyarinova, A.P.

133-8-20/28

AUTHOR: Boyarinova, A.P. (Engineer).

TITLE: A new alloy ~~ЭМ~~652 of a high electrical resistance.
(Novyy splav vysokogo omicheskogo soprotivleniya ~~ЭМ~~652).

PERIODICAL: "Stal'" (Steel), No.8, 1957, pp.745-746 (USSR).

ABSTRACT: An investigation of the properties of an austenitic chromium nickel aluminium alloy ~~ЭМ~~652, developed by V.S.Kultygin, Eng., is described. The composition of the alloy is not given. Specific electrical resistance - Table 1; mechanical properties of the alloy at room temperature in hardened and annealed states - Table 2; changes of mechanical properties with temperature - Fig.; testing conditions of heating elements from the alloy - Table 3. On the basis of the results obtained it is concluded that the alloy is suitable for application as a high electrical resistance alloy, its average specific resistance 1.30/Ohm.mm²/m and limiting operating temperature 1200 C. The alloy possesses a high mechanical strength at room and high temperatures. In the editorial note the use of the alloy is recommended as equivalent to an alloy X20H80, but the necessity for further development of ironchromium alloys is stressed.

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133-8-20/28

A new alloy ~~M~~652 of a high electrical resistance. (Cont.)

There are 3 tables and 1 figure.

ASSOCIATION: "Elektrostal'" Works. (Zavod "Elektrostal'").

AVAILABLE: Library of Congress

Card 2/2

BOYARINOVA, A.P., inzh.; KENLOVA, A.R., kand.tekhn.nauk

Heat-resistant, economically alloyed EI835 steel. Metalloved.
i term. obr. met. no.19:27-28 O '61. (MIRA 14:10)

1. named "Elektrostal'" i tsentral'nyy nauchno-issledovatel'skiy
institut Chernoy **metallurgii.**

(Steel, heat-resistant)

(Steel alloys)

16691
S/129/62/000/004/003/010
E073/E535

/D. 1235

AUTHORS: Boyarinova, A.P., Mel'kumov, I.N., Brusilovskiy, B.S.
and Kontsevaya, Ye.M., Engineers

TITLE: Causes of brittle fracture of the nickel-chromium-
aluminium alloy ЭИ652 (EI652)

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
no.4, 1962, 14-17 + 1 plate

TEXT: In the production of cold rolled 3 mm sheet from the alloy
EI652 large cracks were frequently observed after intermediate hot
rolling to 4.1 mm. In this paper the results are given of special
investigations made for determining the causes of formation of such
cracks and the method of eliminating them. In the investigations
three experimental nickel-base heats of the following compositions
were used:

No.	Cr	Al	Si	Mn	S	Table 1	
						P	Fe
1	26.80	3.00	0.25	0.06	0.007	0.006	0.46
2	28.08	3.35	0.23	0.07	0.009	0.006	0.44
3	27.00	3.14	0.22	0.07	0.007	0.005	0.60

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Causes of brittle fracture ...

S/129/62/000/004/003/010
E073/E535

All the three heats contained 0.05% C and 1.03% "Ze". It was found that the cause of brittle failure of the alloy in the hot rolled state is the slow cooling in the temperature range 700 to 600°C, during which the solid solution decomposes and an inter-metallide phase of the type Ni₃Al forms. The quantity of the rejected phase depends on the time during which the alloy is within the dangerous temperature range. Combined with the stresses caused by work-hardening and also the thermal stresses, the rejection of the intermetallide phase leads to the formation of cracks. To prevent cracking, the breakdowns should be cooled separately (to 200°C) before stacking. There are 3 figures and 3 tables.

[Abstracter's note: 1.03% Ze is obviously a printing error.]

ASSOCIATIONS: Zavody "Elektrostal'" ("Elektrostal'" Works)
and "Serp i Molot"

Card 2/2

ACCESSION NR: AP4029125

S/0133/64/000/004/0320/0323

AUTHORS: Melikhov, P. I.; Boyarinova, A. P.; Grashchenkov, P. M.; Mel'kumov, I. N.

TITLE: Industrial development of smelting new stainless heat-resistant steel SN-2 (EI904)

SOURCE: Stal', no. 4, 1964, 320-323

TOPIC TAGS: steel, stainless steel, stainless heat-resisting steel, steel SN-2 (EI904), austenite-martensite steel, carbon admixture, nickel admixture, phase composition

ABSTRACT: Austenitic-martensitic steel SN-2 (EI904) is now being smelted in arc furnaces of industrial capacity. Small inclusions of carbon and nickel alter the phase composition of steel, thus giving it the desired properties. The chemical composition of the steel (in %) is:

C	Mn	Si	Cr
0.05-0.09	<0.7	<0.7	14.8-16.5
Ni	Al	S	P
7.0-9.4	0.9-1.4	<0.025	<0.025

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ACCESSION NR: APh029125

In normalized condition SN-2 is austenitic, soft, and extremely malleable; it becomes martensitic and acquires higher strength in quenching. The addition of carbon is most effective in imparting austenitic structure. Since the martensitic structure is magnetic and austenitic is not, the state of this intermediate steel may best be determined by its magnetic properties. This is accomplished by placing a sample in a magnetizing coil of a device designed by G. D. Kubyshkina. In the presence of magnetic phase the interaction of the primary and the secondary coils of this device motivate an indicator needle. Steel SN-2 is produced in 5- and 20-ton furnaces, either of fresh materials without oxidation or of carbon-bearing materials oxidized with iron ore and oxygen). Batches (with aluminum added were designed to contain a high amount of martensite, and carbon was introduced to produce the transitional austenitic-martensitic phase structure. The resulting material was classified as "soft" (magnetism $M = 3-11$ mv) or as "hard" ($M = 12-18$ mv). After proper alloying and purification, the batches were blown through with argon and cast into ingots of 500, 1000, and 2100 kg. The ladle temperature of metal in 5-ton furnaces was 1540-1615C, in 20-ton furnaces 1530-1660C (measured with a submerged thermocouple). Small ingots were stripped and forged, while the 2100-kg ones were hot-pressed in the rough condition. All the samples showed acceptable properties, except that those with magnetization of

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ACCESSION NR: AP4029125

15.1 and 17.3 mv were low in toughness. This characteristic may be remedied, however, by lowering the aging temperature from 500 to 450C. Orig. art. has: 2 graphs and 4 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 28Apr61

ENCL: 00

SUB CODE: ML

NO REF SOV: 001

OTHER: 001

Card 3/3

N L 11133-66		EWI(m)/ENP(w)/EVA(d)/T/ENP(t)/ENP(z)/ENP(b)		MTW/JD
ACC NR:	AP6000611	SOURCE CODE: UR/0129/65/000/012/0043/0047		
AUTHOR:	Boyarinova, A. P.; Mel'kumov, I. N.	57		
ORG:	Elektrostal' Metallurgical Plant (Zavod "Elektrostal'")	55		
TITLE:	Structure and properties of Kh16N6 (EP288) stainless steel			
SOURCE:	Metallovedeniye i termicheskaya obrabotka metallov, no. 12, 1965, 43-47			
TOPIC TAGS:	steel, stainless steel, austenitic steel, solid mechanical property, metal grain structure			
EP288 steel, Kh16N6 steel				
ABSTRACT: The structure and mechanical properties of three heats of Kh16N6 (EP288) stainless steel have been studied. The heats had almost identical composition — 0.7—0.8% carbon, 0.41—0.57% silicon, 0.25—0.56% manganese, 15.85—16.27% chromium, and 6.20—6.75% nickel—but differed in the content of the magnetic phase [Determined by a magnetometer suggested by G. D. Kubyshkina (Stal' no. 4, 1964, 320-323) calibrated in millivolts]. After annealing at 1050—1075C and air cooling, the most magnetic (15.5 mv) heat 3 had a tensile strength of 127 kg/mm², a yield strength of 29 kg/mm², an elongation of 19%, and a reduction of area of 39% compared to 102 kg/mm², 20 kg/mm², 29%, and 42% for the least magnetic (3.6 mv) heat 1. Annealing followed by refrigeration at -70C and aging at 425C for 2 hr increased the tensile and yield strength of heat 3 to 133 and 115 kg/mm², respectively; elongation dropped to 18%, but reduction of area increased to 70%. Corresponding figures for heat 1 were 128 and				
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ACC NR: AP6000611

106 kg/mm² and 23% and 70%. All three heats had a high notch toughness of 14 to 16 mkg/cm². All three heats maintained high mechanical properties at temperatures up to 400—450C (see Fig. 1). Lower annealing temperature resulted in lower strength and notch toughness. The most effective refrigerating range is -50 to -70C. Higher refrigeration temperatures result in lower strength while temperatures below -70C have only an insignificant additional effect. All three heats in the annealed

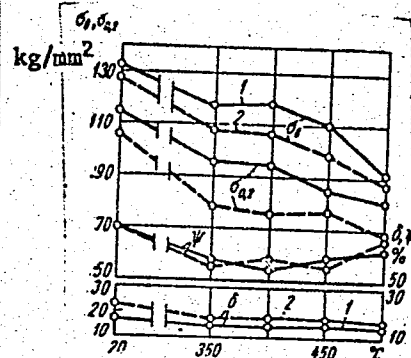


Fig. 1. Temperature dependence of tensile strength (σ_B), yield strength ($\sigma_{0.2}$), elongation (δ), and reduction of area (ψ) for heats with a high (1) and low (2) content of the magnetic phase

condition had the same structure: austenite with a small amount of martensite. According to x-ray diffraction analysis, the martensite content in all three heats was the same, about 40%. Refrigeration and aging increased the martensite content to about 90% in all three heats. However, isolated areas of residual austenite were observed in the least magnetic heat. Thus, the properties of Kh16N6 steel

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ACC NR: AP6000611

after annealing and strengthening treatment depend primarily on the initial content of the magnetic phase. The best properties are achieved in steels with a content of the magnetic phase corresponding to 15 mv. Orig. art. has: 4 figures and 2 tables.

[DV]

SUB CODE: 11, 13//.SUBM DATE: none/ . ORIG REF: 004/ OTH REF: 001/ ATD PRESS:

4174

Card 3/3

L 13604-66 EWT(m)/EWA(a)/T/EWP(t)/ENP(z)/ENP(b) JD

ACC NR: AP6002909

SOURCE CODE: UR/0286/65/000/024/0073/0073

INVENTOR: Cheskis, Kh. I.; Vitman, D. V.; Boyarinova, A. P.

ORG: none

TITLE: Oxidation resistant chromium-nickel steel. Class 40,
No. 177080 [announced by the State Design and Scientific Research
Institute of Petroleum Machinery (Gosudarstvennyy proyektnyy i nauchno-
issledovatel'skiy institut neftyanogo mashinostroyeniya)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no: 24, 1965, 73

TOPIC TAGS: steel, oxidation resistant steel, chromium containing
steel, nickel containing steel, manganese containing steel, silicon
containing steel

ABSTRACT: This Author Certificate introduces an oxidation-resistant
chromium-nickel steel with increased resistance to carburizing. The
steel contains 18—25% chromium, 8—18% nickel, 6—8% manganese,
1.3—3% silicon, 0.3% max carbon, 0.2% max nitrogen, 0.025% max
sulfur, and 0.035% max phosphorus. [AZ]

SUB CODE: 11/ SUBM DATE: 17Sep63/ ATD PRESS: 4/87

stainless steel

Cord 1/1

UDC: 629.15—194.3.24.26

L 4177-66 EWT(m)/EWF(e)/EWP(i)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)	
ACC NR: AP5024405	SOURCE CODE: UR/0286/65/000/015/0083/0083
INVENTOR: Estulin, G. V.; Zimina, L. N.; Kosheleva, G. F.; Topilin, V. V.; Boyarinova, A. P.; Tsvetkova, V. K.; Khatalakh, R. F.; Shnyakin, N. S.; Polyakov, K. M.; Mel'nikov, M. V.; Belyakova, K. A.; Il'in, A. A.; Morozov, B. S.; Bogdanovskiy, S. P.; Khrakovskaya, P. S.	
ORIG: none	
TITLE: Wrought, heat-resistant, nickel-base alloy. Class 40, No. 173418 [announced by Central Scientific Research Institute of Ferrous Metallurgy im. Bardin (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii); z-d "Elektrostal'" im. I. F. Tevosyan]	
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 83	
TOPIC TAGS: alloy, nickel alloy, chromium containing alloy, molybdenum containing alloy, tungsten containing alloy, titanium containing alloy, aluminum containing alloy, carbon containing alloy, beryllium containing alloy, cerium containing alloy	
ABSTRACT: This Author Certificate introduces a wrought, heat-resistant, nickel-base alloy with improved mechanical properties and weldability. The alloy contains 17 to 20% chromium, 8-12% molybdenum, 0-6% tungsten, 2-3% titanium, 1-2% aluminum, 0.1% max carbon, 6% max iron, 0.01% max sulfur, 0.015 max phosphorus, 0.5% max manganese, 0.6% max silicon, 0.01% max boron, and 0.02% max cerium. [AZ]	
SUB CODE: MM/	SUBM DATE: 05Feb64/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4/28
Cord 1/1	UDC: 669.245

L 39621-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD/HW/JG/GD-2

ACC NR: AP6003301

(N)

SOURCE CODE: UR/0129/66/000/001/0017/0019³¹

30
B

AUTHOR: Boyarinova, A. P.; Savel'yeva, T. S.; Dubrovina, A. N.

ORG: Elektrostal' Plant (Zavod "Elektrostal'")

TITLE: Effect of molybdenum and tungsten on the properties of Kh25N16G7AR steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 1, 1966, 17-19,

TOPIC TAGS: heat resistant steel, molybdenum, tungsten, impact strength, corrosion, intermetallic compound / Kh25N16G7AR heat- and scale-resistant steel

ABSTRACT: Kh25N16G7AR (E1835) heat- and scale-resistant steel (14.8-15.6% Ni plus minute amounts of other alloy elements) is used in industry as a substitute for expensive heat-resistant Ni-base alloys. In this connection, the authors investigated the effect of treatment with additional Mo and W on the strength and corrosion resistance of this steel. The structure of the thus treated melts of the steel (with 6.2 and 2.5% Mo and 3.97% W, respectively, following quenching from 1150°C represents a homogeneous solid solution. All the melts display a stable austenitic structure. Tempering at 700-1000°C leads to the segregation of excess phases. Treating the steel with 2.5% Mo or 4% W hardly affects its impact strength at temperatures below 900°C; increasing the Mo content of the steel to 6% improves its resistance to inter-

Card 1/2

UDC: 620.178.38:669.15-194:669.24'26

L 39621-66

ACC NR: AP6003301

crystalline corrosion, while the presence of W has a beneficial effect on the steel's stress-rupture strength. On the other hand, in such cases the solubility limit of Mo and W in Kh25N16G7AR steel is exceeded and this leads to the formation of intermetallic phases with the lattice χ - α -Mn which represent a metastable modification of the σ -phase (in the steels with Mo) and of Fe_7W_6 (in the steel with W). Chemical analysis has shown that the intermetallic phases are enriched with Mo or W as well as with Cr and N. The presence of these phases results in the embrittlement of the steels on heating to 700-1000°C. Orig. art. has: 3 figures, 1 table. 45, 18

SUB CODE: 11, 13, 20/ SUM DATE: none/ ORIG REF: 002/ OTH REF: 000

212MLP

BOYARINOVA, B. A. DOCENT

PA 18/49T27

USSR/Medicine - Antibiotics
Medicine - Infection, Therapy

Sep/Oct 48

"Local Application of Gramicidin in Post-Partum Diseases," Docent B. A. Boyarinoва, Ye. K. Gidlerskaya, Obstet and Gynecol Clinic, Krasnoyar Med Inst, and Krasnoyarak Inst of Epidemiol and Microbiol, 2 pp

"Arusher 1 Ginekol" No 5

Report of observations. Concludes that local application of gramicidin promotes more rapid cleansing of localized infected wound surface and leads to a favorable change in microflora in

18/49T27

USSR/Medicine - Antibiotics (Contd) Sep/Oct 48

post-partum cases. Use of gramicidin also permissible where infection extends beyond uterus. Antibiotic treatment should begin early and be continued over a fairly prolonged period.

18/49T27

BOYARINOVA, B.A.

Urgent problems of the contemporary study of respiratory immunization against diphtheria and whooping cough. Trudy Irk. NIIEI no. 7:220-229 '62

Role of the barrier and bactericidal function of respiratory organs and their lymph nodes in immunogenesis following respiratory immunization. Ibid.:230-241

Significance of the dose and number of immunization seances in the introduction of the polyvalent diphtheria-pertussis vaccine through the respiratory tract. Ibid.:242-247

1. Iz laboratorii respiratornykh bakterial'nykh infektsiy Irkutskogo nauchno-issledovatel'skogo instituta epidemiologii i mikrobiologii.

BOYARINOVA, B.A.; BOGDANOVA, T.S.

Testing of the effectiveness of the diphtheria-pertussis-
tetanus vaccine in a limited children's contingent. Trudy
Dok. NIEM no. 7:248-254 '62 (MIRA 19:1)

BOYARINOVA, L.A.

IL'IN, V.D.; BOYARINOVA, L.A.

Geological structure of the Lake El'ton region. Trudy VNIGNI no.4:
95-106 '54. (MLRA 10:4)

(El'ton region—Geology, Stratigraphic)

BOYARINOVA, L.A.
EVENTOV, Ya.S.; BOYARINOVA, L.A.

Jurassic deposits in the western regions of the Caspian Depression.
Trudy VNIIGI no. 5:49-65 '55. (MLRA 10:9)
(Caspian Depression--Geology, Stratigraphic)

Distr: hshj

Recovery of waste and spent aluminum silicate catalyst. 27 5

S. I. Kravtsov, D. V. Musheva, M. V. Tolstova, and L. A. Boyarinova. U.S.S.R. 108,608, Nov 23 1957. Waste

and spent Al silicate catalyst spheres are dissolved in NaOH having a concn of 150-200 g/l at about 100°. The resulting colloidal suspension is allowed to settle out and then filtered off for re-use.

M. Haseh

Ch

MUSHENKO, D.V.; BOYARINOVA, L.A.

Chemical regeneration of aluminosilicate catalysts. Trudy VNIINefte-
khim no.3:103-111 '60. (MIRA 14:2)
(Catalysts) (Aluminosilicates)

S/081/62/000/023/027/120
B158/B180

AUTHORS: Turgel', Ye. O.; Balukov, R. V., Boyarinova, L. A.

TITLE: Determinating the saturated hydrocarbon content in mixtures with saturated monatomic alcohols

PERIODICAL: Referativnyy zhurnal.. Khimiya, no. 23, 1962, 201, abstract 23D167 (Tr. Vses. n.-i. in-t neftekhim. protsessov, no. 5, 1962, 75-80)

TEXT: The authors examine the possibility of determining the hydrocarbons (HC) which are formed together with alcohols when fatty acids are hydrogenated. A chromatographic method is described. 3-5 g of the substance are dissolved in 15 ml hexene (I) (obtained by dehydrating hexyl alcohol in vapor phase over activated Al_2O_3) and the solution is transferred to a column 500-600mm long and 10-12 mm in diameter and filled with 25-30 g of ACM (ASM) silica gel (61-120 mesh). The column is eluted with 10 ml I and then with 60-70 ml C_2H_5OH . All the HC is contained in the first 20 ml of the eluate. This fraction of the eluate is transferred to a calibrated flask and most of the I is distilled off with a dephlegmator at a water-bath temperature
Card 1/2

Determinating the saturated ...

S/081/62/000/023/027/120
B158/B180

of 75-25°C: On cooling, the flask is weighed and the combined weight of HC and residual I determined. The contents of the flask are dissolved in 20-30 ml octane, transferred to a 100 ml measuring flask, the solution being made up to the mark with octane, and I is determined bromatometrically (the value of I is checked in a control test). The HC content is calculated from the difference. The determination error is $\pm 0.1-0.9\%$ (absolute). [Abstracter's note: Complete translation.] ✓

Card 2/2

MAYOROV, D.M.; BOYARINOVA, L.A.; BLANDIN, Yu.V.

Production of technical lauryl and stearyl alcohols from fatty
raw materials. Zhur. prikl. khim. 37 no.6:1344-1349 Je '64.
(MIRA 18:3)

MAYOROV, D.M.; MUSHENKO, D.V.; BOYARINOVA, L.A.; BELOKOPYTOVA, A.P.

Production of technical lauryl and stearyl alcohols from
petroleum products. Zhur.prikl.khim. 37 no.7:1640-1642
Jl '64. (MIRA 18:4)

SHUTSKAYA, Ye.K.; BOYARINOVA, L.A.; KOROVINA, G.M.; MOKSYAKOVA, A.M.

Stratigraphic diagram of the Danian stage, the Paleogene,
and the Lower Miocene of the western part of Central Asia.
Geol. nefti i gaza 7 no.12:44-47 D '63. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy
neftyanoy institut, Moskva.

ARKHANGEL'SKIY, B.A.; TRIZNO, M.S.; BOYARINOVA, L.V.; MEDVEDCHUK, O.A.

Synthetic shale epoxy resins. Khim. i tekhn. gor. slan. i prod.
ikh perer. no.9:214-225 '60. (MIRA 15:6)
(Epoxy resins) (Oil shales)

KLIMOVA, O.M.; BOYARINOVA, L.V.

Epoxy resins from shale phenols. Khim. i tekhn. gor. slan. i
prod. ikh perer. no.9:226-231 '60. (MIRA 15:6)
(Epoxy resins) (Oil shales) (Phenols)

KLINOVA, O.M.; POZDEYEVA, T.S.; BOYARINOVA, L.V.

Synthesis of resins from lignin and higher fractions of shale
phenols. Khim. i tekh. gor. slan. i prod. ikh perer. no.9:
232-235 '60. (MIRA 15:6)
(Gums and resins, Synthetic) (Lignin) (Phenols)

BOYARINOVA, M. V., Cand Med Sci -- (diss) "Treatment of closed fractures of diaphysis of the femur bone in children." Leningrad, 1960. 18 pp; (Leningrad State Order of Lenin Inst for Advanced Training of Physicians im S. M. Kirov, from the State Scientific Research Child Orthopedics Inst im G. I. Turner and from the Children's Hospital im Dr Raukhfus); 400 copies; price not given; (KL, 17-60, 167)

AKHUNDOV, A.A., kand. med. nauk; BAIROV, G.A., prof.; BOYARINOVA,
M.V., kand. med. nauk; BUTIKOVA, N.I., doktor med. nauk;
ZOBINA, M.M., kand. med. nauk; IVASHKO, L.M.; KAZANTSEVA,
N.D., kand. med. nauk; ~~ZLOTNIKOV, D.M., professor;~~
KUZ'MIN, B.P., kand. med. nauk; OBODAN, N.M., kand. biol.
nauk; KHILKOVA, T.A., kand. med. nauk; EPSHTEYN, Grigoriy
Yakovlevich, prof.

[Traumatology and restorative surgery in children; selected
chapters] ~~Traumatologiya~~ i vosstanovitel'naya khirurgiya
detskogo vozrasta; izbrannye glavy. Leningrad, Meditsina,
1964. 334 p. (MIRA 17:6)

1. Chlen-korrespondent AMN SSSR (for Bairov).

BOYARINOVA, M.V., kand.med.nauk

Treatment of closed fractures of the diaphysis of the femur in children. Ortop., travm.i protez. no.4:53-57 '62. (MIRA 15:5)

1. Adres avtora: Leningrad, P-136 Lakhtinskaya ul., d.10/12,
Institut im. Turnera.

(FEMUR—FRACTURE)

BOYARINOVA, M.V., kand. med. nauk (Leningrad, F-126, Zvenigorodskaya ul.d.22,kv.22); KUZ'MIN, B.P.

Severe complications in the treatment of fractures of upper extremities in children. Vest. Khir. 91 no.12:76-78 D '63.

(MIRA 17:9)

1. Iz travmatologicheskogo otdeleniya (rukovoditel'-prof. G.Ya. Epshteyn) Nauchno-issledovatel'skogo detskogo ortopedicheskogo instituta imeni G.I. Turnera (dir.-prof. M.N. Goncharova) i travmatologicheskogo otdeleniya (zav.- L.M. Ivashko) detskoy bol'nitsy imeni Raukhfusa (glavnyy vrach-Ye.N. Speranskaya), Leningrad.

KOROLEVA, N.I.;BOYARINOVA, N.Ye.

Clinical value of hydrophil test in rheumatism in children. Vopr. pediat.
20 no.6:42-47 Nov-Dec 1952. (GLML 23:4)

1. Docent for Koroleva; Assistant for Boyarinova. 2. Of the Department and Clinic for Children's Diseases of the Therapeutic Faculty of the Crimean State Medical Institute imeni I. V. Stalin (Head -- Prof. P. I. Il'inskiy) and of the Department of Hospital Pediatrics (Head -- Docent N. I. Koroleva).

BOYARINOVA, N.Ye.

Clinical evaluation of protein fractions of the blood serum during
and therapy for children with rheumatism. Vop.okh.mat. i det. 7
no.12:79 D'62. (MIRA 16:7)

1. Iz kafedry fakul'tetskoy pediatrii Krymskogo meditsinskogo in-
stituta i sanatoriya imeni Sakko i Vantsetti.
(CHILDREN—DISEASES) (GYNECOLOGY)

MORAVSKIY, P., polkovnik; BOYARINTSEV, A., kapitan

When should one open fire? Voen.vest. 42 no.9:83-84 S '62.
(MIRA 15:8)
(Antiaircraft artillery)

BOYARINTSEV, A.P.

Production processes should be adapted to the over-all
automation. Mashinostroitel' no.6:35 Je '61. (MIRA 14:6)
(Kharkov--Hosting machinery)
(Automation)

BOYARINTSEV, A.Ye.

Some generalizations of Wilson's theorem. Mat. zap. Ural. mat. ob-va
UrGU 3 no.3:21-24 '62. (MIRA 18:7)

Ex. 10.11 The heating of a cylinder by a jet

Source: Mathematical Reviews.

Vol 11 No. 4

BOYARINTSEV, D. I.

158T92

USSR/Physics - Heat, Transference
Heat, Convection

Feb 50

"Heat Exchange of Spherical Surfaces During Free Convection," D. I. Boyarintsev, 4 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 2

Discusses results of experiments conducted in 1939-1941 on determination of heat exchange of free convection for brass spheres of various diameters placed in water, air, CO₂ at normal pressure. Graph shows coefficient of heat exchange (in Cal/sq m · hr · °C) versus diameter, for various temperature differences between sphere and gas. Another graph shows Nu versus GrPr. Submitted 15 Sep 48 by Acad M. V. Kirpichev.

158T92

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226 227																			
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~~BO~~YARINTSEV, F. S.

BOIARINTSEV, F. S. Planning and construction of high output water wells
Moskva, Gos. izd-vo selkhoz lit-ry, 1949. 174 p.

BOYARINTSEV, F. S.

(Sel'skoupravleniye, Altay Kray), "High-Flow Tubular Well Shafts With KIB Filters,"
report given at Soviet Conference on Construction Problems of Water-Well Filters,
Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, No 5, 1950

Digest W-15118, 10 Nov 50

BOYARINTSEV, F.S., inzhener.

Using highly productive irrigation methods in the Aleyskaya Steppe
(Altai). Godr. 1 mel.8 no.7:12-17 J1 '56. (MLRA 9:9)
(Altai--Irrigation)

BOYARINTSEV, P. G.

"Oparino Sheep and Methods of Improving Them." Cand Agr Sci,
Kirov Inst of Agriculture, Kirov, 1954. (RZhBiol, No 4, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical
Dissertations Defended at USSR Higher Educational Institutions.
(14)

... BOYARINTSEV - P. G.

USSR / Farm Animals. Small Horned Stock.

Q-2

Abs Jour: Ref Zhur-Biol., No 23, 1958, 105683.

Author : Boyarintsov, P. G.

Inst : Kirov Agricultural Institute.

Title : Comparative Growth of Single and Twin Lambs.

Orig Pub: Tr. Kirovskogo s.-kh. in-ta, 1957, 12, No 24,
223-226.

Abstract: Lambs of the Oparino breed group and lambs of the Fine-wool breed were under experimentation. It was established that twin lambs have lesser weight at birth than single lambs. The relative weight of unisexual twins as compared with weight of the single Oparino lambs amounts to 79.3% that of heterosexual twins 81% and that of Vyatka Fine-wool lambs 82 and 80.3% respectively. With growth, the difference in live

Card 1/2

USSR / Farm Animals. Small Horned Stock.

Q-2

Abs Jour: Ref Zhur-Biol., No 23, 1958, 105683.

Abstract: weight between single and twin lambs decreases. Heterosexual twins catch up with single lambs in live weight at approximately 9 months, and unisexual twins at 11 months. In Oparino unisexual twins, the wool production was higher than in single lambs by 82 g. (3.7%) and in heterosexual twins by 260 g. (12.2%), and in Vyatka Fine-wool lambs by 197 g. (7.8%) and 347 g. (13.8%), respectively.

Card 2/2

(A) L 13564-66 EWT(m)/ETC(F)/EWG(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c)

ACC NR: AP6001234 SOURCE CODE: UR/0363/65/001/012/2167/2169
RDW/JD

AUTHOR: Kharakhorin, F. F. ; Boyarintsev, P. K. ; Petrov, V. M.

ORG: none

TITLE: Study of alloys of the $Cd_{0.05}Hg_{0.95}Te$ system

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 12, 1965, 2167-2169

TOPIC TAGS: cadmium alloy, mercury alloy, tellurium alloy, semiconductor alloy, electric conduction, photoconductivity, photo emf, photomagnetic effect, single crystal growth, absorption coefficient, temperature dependence, spectral distribution

ABSTRACT: Polycrystalline ingots of the alloy $Cd_{0.05}Hg_{0.95}Te$ were synthesized from cadmium telluride and mercury telluride and used to grow single crystals by Bridgman's method. The temperature dependence of the electrical conductivity and Hall coefficient were determined. All the samples had n-type conductivity at room temperature; at liquid nitrogen temperature, most displayed p-type conductivity, but the purest ones had n-type conductivity and an acceptor concentration of 10^{18} cm^{-3} . The spectral distribution of the absorption coefficient was measured on polished samples 0.1 — 0.2 mm thick. The dependence of this coefficient on the photon energy in the 0.13 — 0.16 eV range permitted the calculation of the "optic" energy gap, which amounted to about 0.07 eV at room temperature. The photoconductivity, photo-emf, and photomagnetic effect were also measured on some samples at room and liquid nitrogen temperatures. A change in the cooling conditions (immersion in water)

Card 1/2

UDC: 546.3-19'48'49'42

L 13564-66

ACC NR: AP6001234

showed that the photothermomagnetic effect prevails at room temperature. At 77K, the ratio of electron to hole mobility for a series of p-type samples is about 80, and the carrier lifetime calculated from data on the photomagnetic effect is less than 10^{-10} sec. Authors thank D. I. Arnol'd for his participation in the measurements. Orig. art. has: 3 figures.

SUB CODE: 11, 20 / SUBM DATE: 06Jul65 / ORIG REF: 001 / OTH REF: 004

Card

2/3

24.5200 16.3900 16.3500 28641
 16.6500 S/020/61/139/006/006/022
 U111/C333
 AUTHORS: Yanenko, N. N. Boyarintsev, Yu. Ye.
 TITLE: Convergence of difference schemes for the heat conduction equation with variable coefficients
 PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 6, 1964, 1322-1324

TEXT: The authors consider the mixed Cauchy problem

$$\frac{\partial u}{\partial t} = \sum_{i=1}^m \frac{\partial}{\partial x_i} \left[a(x_1, x_2, \dots, x_m, t) \frac{\partial u}{\partial x_i} \right], \quad (1)$$

$$a(x_1, x_2, \dots, x_m, t) \geq a_0 > 0;$$

$$u(x_1, x_2, \dots, x_m, 0) = \varphi(x_1, x_2, \dots, x_m); \quad (2)$$

$$u(x_1, x_2, \dots, x_{i-1}, 0, x_{i+1}, \dots, x_m, l) = f_i(x_1, \dots, x_{i-1}, x_{i+1}, \dots, x_m, l), \quad (3)$$

$$u(x_1, x_2, \dots, x_{i-1}, 1, x_{i+1}, \dots, x_m, l) = g_i(x_1, \dots, x_{i-1}, x_{i+1}, \dots, x_m, l).$$

Card 1/5

28641

S/020/61/139/006/006/022
C111/C333

Convergence of difference schemes ...

where $\alpha(x, t)$, $\varphi(x)$, $f_s(x, t)$, $g_s(x, t)$ are sufficiently smooth.
For the solution of (1) - (3) the authors propose the difference scheme

$$A_1(\alpha r^{n+1}) u^{n+1} = A_1 [(1 - \alpha) r^n] u^n, \quad 0 < \alpha < 1; \quad (4)$$

$$u_{i_1 \dots i_m}^0 = \varphi_{i_1 \dots i_m} = \varphi(i_1 h_1, \dots, i_m h_m); \quad (5)$$

$$u_{i_1 \dots i_{s-1}, 0, i_{s+1} \dots i_m}^n = f_{i_1 \dots i_{s-1}, i_{s+1} \dots i_m}^n; \quad (6)$$

$$u_{i_1 \dots i_{s-1}, N_s+1, i_{s+1} \dots i_m}^n = g_{i_1 \dots i_{s-1}, i_{s+1} \dots i_m}^n;$$

where

Card 2/5

28641

Convergence of difference schemes ...

8/020/61/139/006/006/022
C111/0333

$$\begin{aligned}
 u^n &= \{u_{i_1 \dots i_m}^n\} = u(i_1 h_1, \dots, i_m h_m, n\tau); \\
 i_s &= 0, 1, \dots, (N_s + 1); \quad (N_s + 1) h_s = 1; \\
 r^n &= \{r_{i_1 \dots i_m}^n\}; \quad r_{i_1 \dots i_m}^n = \frac{u_{i_1 \dots i_s + 1/2 \dots i_m}^n}{h_s^n}; \\
 A_1(\alpha r) &= E - \alpha B(r); \quad A_1[(1 - \alpha)r] = E + (1 - \alpha)B(r); \\
 B(r) &= \sum_{s=1}^m B_s; \quad B_s = \{B_s^{i_1 \dots i_m}\}; \\
 B_s^{i_1 \dots i_m} &= r_{i_1 \dots i_{s-1} \dots i_m} \delta_{i_s-1 \dots i_m}^{i_1 \dots i_s \dots i_m} - \\
 &\quad - (r_{i_1 \dots i_{s-1} \dots i_m} + r_{i_1 \dots i_s \dots i_m}) \delta_{i_s \dots i_m}^{i_1 \dots i_s \dots i_m} + r_{i_1 \dots i_s \dots i_m} \delta_{i_s+1 \dots i_m}^{i_1 \dots i_s \dots i_m};
 \end{aligned}
 \tag{7}$$

$\delta_{i_1 \dots i_m}^{j_1 \dots j_m} = \delta_{i_1}^{j_1} \dots \delta_{i_m}^{j_m}$; δ_i^j denotes the Kronecker symbol.

Card 3/5

Convergence of difference schemes ...

28641
S/020/61/139/006/006/022
C111/C333

According to the theorem of equivalence of R. D. Rikhtmayer (Ref. 1; Raznostnyye metody resheniya krayevykh zadach [Difference method for the solution of boundary value problems], 1960, pp. 57) it is necessary and sufficient for the convergence of (4) - (6) that the operator

$$C_n = A_2^{-1} (\alpha r^{n+1}) A_1 [(1 - \alpha) r^n] \quad (8)$$

possesses a norm satisfying

$$\|C_n\| = 1 + d_n \tau, \quad |d_n| \leq K, \quad (9)$$

where the constant K does not depend on n, τ, h .

The authors state that this property of C_n exists in the present case by introduction of two auxiliary operators C and c with constant coefficients and by proving with the aid of four lemmata that C is stable if C is stable, and that C is unstable if c is unstable. By applying the Neumann criterion for determining the stability of c and C then it follows:
Card 4/5

28641

Convergence of difference schemes . . . S/020/61/139/006/006/022
C111/C333

Theorem 2: If $1/2 \leq \alpha \leq 1$ or $0 \leq \alpha < 1/2$ and

$$\sum_{s=1}^m R_s \leq \frac{1}{2-4\alpha}, \quad (19)$$

then the solution of (4) - (6) converges in the mean to the solution of (1) - (3). [Abstracter's note: The α in (19) is nowhere defined.]

Here $R_s = \max_{i_1, \dots, i_m} \{r_{si_1, \dots, i_m}\}$.

There is 1 Soviet-bloc reference.

PRESENTED: March 31, 1961, by S. L. Sobolev, Academician

SUBMITTED: January 2, 1961

Card 5/5

L 11931-66 EWT(d) IJP(c)

ACC NR: AP5028903

SOURCE CODE: UR/0020/65/165/003/0474/0475

AUTHOR: Boyarintsev, Yu. Ye. 44,55

ORG: Computing Center, Siberian Division, Academy of Sciences SSSR (Vychislitel'nyy tsentr Sibirskogo otdeleniya Akademii nauk SSSR) 44,55

TITLE: Convergence of difference schemes for the wave equation with variable coefficients 16,44,55

SOURCE: AN SSSR. Doklady, v. 165, no. 3, 1965, 474-475

TOPIC TAGS: differential equation, approximation calculation, CAUCHY PROBLEM, WAVE EQUATION

ABSTRACT: The author considers

$$\frac{\partial^2 u}{\partial t^2} = \frac{\partial}{\partial x} \kappa(x, t) \frac{\partial u}{\partial x}, \quad (1)$$

where

$$0 < x_0 \leq \kappa(x, t) \leq \chi < \infty, \quad \kappa_t(x, t) \leq L < \infty, \quad 0 \leq t \leq T < \infty. \quad (2)$$

χ_0, L, T, χ are constants. He sets up the mixed Cauchy problem:

$$u(x, 0) = L(x), \quad u_t'(x, 0) = \psi(x), \quad u(0, t) = u(1, t) = 0. \quad (3)$$

From the functions $\kappa(x, t), L, \psi$ he wants to find a smoothness which guarantees continuity of the solution of problem (1) - (2) with continuous derivatives up to and

Card 1/2

UDC: 518.517.944/947

L 11931-66

ACC NR: AP5028903

including fourth order. The separation of variables is used to treat the case $\chi = \chi_1(\chi)\chi_2(t)$ and the method of a priori estimates in the general case. The problem of convergence of the associated difference problem's solution is handled by a direct algebraic method which in the general nonseparated case involves a noncommutative analysis. The author thanks N. N. Yanenko for his interest in this work. This paper was presented by academician L. V. Kantorovich on 10 April 1965. Orig. art. has: 4 formulas. 3

SUB CODE: 12/

SUBM DATE: 25Feb65/

SOV REF: 005/

OTH REF: 001

HW
Card 2/2

BOYARUNAS, A.M., inzh.; KLEVANNAYA, I.A., inzh.

Increasing the level of engineering efficiency of machine
tools. Mashinostroenie no.2:23-26 Mr-Apr '65. (MIRA 18:6)

BOYARINTSEVA, M.Ya.

Changes in nitrogen metabolism in acute experimental radiation
sickness induced by the administration of radio-active phospho-
rus. Med.rad. 3 no.4:86 J1-Ag '58. (MIRA 12:3)
(NITROGEN METABOLISM)
(PHOSPHORUS—ISOTOPES)

KISILENKO, V.A.; BOYARINTSEVA, M.Ya. (Kiyev)

Working conditions in handling radioactive substances during the construction of main pipelines and measures for improvement. Gig. truda i prof. zab. 4 no.3:49-50 Mr '60. (MIRA 15:4)

1. Institut gigiyeny truda i professional'nykh zabolevaniy, Kiyev.
(PIPELINES) (RADIOISOTOPES—SAFETY MEASURES)

L 17560-63

EW(1)/EW(m)/BDS ES(j)

AMD/AFFTC/ASD AR/K

ACCESSION NR: AT3002365

S/2930/62/000/000/0078/0083

AUTHOR: Boyarintseva, M. Ya. (Kiev)

TITLE: Nitrogen metabolism changes in acute experimental radiation sickness induced by injection of radioactive phosphorus

SOURCE: K voprosam ranney diagnostiki ostroy luchevoy bolezni; sbornik nauchnykh rabot. Kiev, Medgiz USSR, 1962, 78-83

TOPIC TAGS: radiation sickness, radioactive phosphorus, nitrogen metabolism, blood plasma, urine, ammonia, urea, residual nitrogen

ABSTRACT: Rabbits were injected subcutaneously with a radiophosphorus water solution (2.5 microcuries/kg) to induce acute radiation sickness (with animals dying from the 7th to 15th days). Nitrogen metabolism changes were determined by: blood proteins, residual nitrogen, and urea in the blood plasma; and in the urine by total nitrogen, urea, and ammonia. It was found that the blood plasma proteins increased in all animals during acute radiation sickness, but not necessarily on the same day. In some animals the increase appears on the first day and in others on the second or third day. Residual nitrogen in the blood plasma gradually increases from the norm 23-28 mg% to 26-48 mg%.

Card 1/2

L 17560-63

ACCESSION NR: AT3002365

In most animals urea in the blood plasma increases up to the 4th thru 7th days reaching 36 mg% (with norm of 24 mg%) and then decreases progressively. Total nitrogen content in urine increases shortly after irradiation and remains high for the duration of radiation sickness. Excretion of urea with urine decreases the first few days and sharply increases beginning the 6th to 7th days to reach 0.196-0.480 g. Ammonia excreted with urine decreases the first day and continues growing gradually, decreasing noticeably 1-2 days before death, though still remaining higher than the norm. The progressive increase of residual nitrogen, proteins, and urea in the blood plasma and increase in total nitrogen, urea, and ammonia indicate intensive protein disintegration in the organism. Orig. art. has: 5 figures, 1 table.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 28May63

ENCL: 00

SUB CODE: AM

NO REF SOV: 003

OTHER: 002

Cord 2/2

BOYARINTSEVA N.F.

PHASE I BOOK EXPLOITATION 1050

Kirov (Province) Oblastnoye statisticheskoye upravleniye

Narodnoye khozyaystvo Kirovskoy oblasti; statisticheskiy sbornik.
(Economy of the Kirov Oblast; Collection of Statistics) [Kirov]
Kirovskoye knizhnoye izd-vo, 1957. 135 p. 5,000 copies printed.

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Zubareva, A.F., Garkunova, Ye.N., Chistoserdova, M.A., and
Rossokhina, M.M.

PURPOSE: The book is intended for economists and economic statisticians.

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Economy of the Kirov Oblast (Cont.) 1050

COVERAGE: This is a statistical compilation containing the conventional data on the development and present state of economic and social conditions within the territorial limits of Kirovskaya oblast'. Statistical data for 1951-56 are compared to those for 1940, 1928, and 1913. Many data are itemized per type of production or economic activity and per individual rayons. All data are based on the boundaries existing on January 1st, 1957. Some figures for 1956 are preliminary.

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Economy of the Kirov Oblast (Cont.) 1050

Ch. III. Agriculture and Husbandry

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Data on area sown (total; per type of crop; per type of legal ownership; per rayon); head of cattle (per type; per ownership; per rayon); grouping of farms according to size; MTS's and their capacities; number of personnel; electrification

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Economy of the Kirov Oblast (Cont.) 1050

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Ch. VIII. Culture

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AVAILABLE: Library of Congress

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1-22-59

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VENGLINS'KIY, I.V. [Venhlins'kyl, I.V.]; BOYARINTSEVA, N.Ya. [Boiaryntseva, N.IA.]; BUROVA, M.I.

New data on the development of Upper Miocene sediments in the
cis-Carpathian region. Pratsi Inst. geol. kor. kop. AN URSR 4:
80-82 '61. (MIRA 16:7)

(Carpathian Mountain region--Geology, Stratigraphic)
(Carpathian Mountain region--Paleogeography)

BOYARINTSEVA, S.D.; MIRONENKO, A.I., kand. med. nauk

Dynamics of the mental state and biochemical changes in hypertension and atherosclerosis under the influence of hexonium treatment. Trudy 1-go MMI 25:179-189 '63. (MIRA 17:12)

1. Kafedra psikhatrii 1-go Moskovskogo ordena Lenina meditsinskogo instituta (zav. kafedroy prof. V.M. Banshchikov), Kafedra farmakologii 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova (zav. kafedroy deystvitel'nyy chlen AMN SSSR prof. V.V. Zakusov).

BOYARINTSEVA, S.D.; ZAYTSEV, V.P.; KULIKOVA-LEBEDINSKAYA, Ye.I.

Changes in electroencephalograms and reactions of rhythm adoption in mental patients with vascular diseases of the brain under the effect of single small doses in the process of hexonium therapy. Trudy 1-go MMI 34:494-501 '64. (MIRA 18:11)

1. Kafedra psikhatrii (zav. - zaslužhennyy deyatel' nauki prof. V.M. Banshechikov) 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

BOYARINTSEVA Z. I.

Jan/Feb. 49

USSR/ Medicine - Pharmacology
History
Medicine - Drugs, Effects

"Pharmacogostic Studies of Digitalis, Rhododendron and Michelia Fuscate Leaves,"
L. I. Samova, Z. I. Boyarintseva, A. I. Agapova, 1 $\frac{1}{4}$ pp

"Med Prom SSSR" No 1

Authors have investigated pharmaceutical characteristics of above three plants, which they collected during scientific expedition of Moscow Phar Inst to the moist, subtropical regions of USSR in 1946. Summarizes their results.

PA 44/49T61

BOYARINTSEVA, Z.I.; TOL'TSMAN, T.I.

Problem of pharmaceutical service for the rural population in pre-revolutionary Russia. Apt. delo 10 no.4:75-77 J1-Ag '61.

1. Farmatsevticheskiy fakul'tet I Moskovskogo ordena Lenina meditsinskogo instituta. (MIRA 14:12)

(PHARMACY)

10.6000

S/572/60/000/006/001/018
D224/D304

AUTHOR: Boyarishov, S. V., Docent

TITLE: Some technical applications of the theory of axially symmetrical deformation of thin-walled cylindrical shells

SOURCE: Raschety na prochnost'; teoreticheskiye i eksperimental'nyye issledovaniya prochnosti mashinostroitel'nykh konstruksiy. Sbornik statey. No. 6, Moscow, 1960, 3-55

TEXT: The author gives a survey of the derivation of the differential equation for the radial displacement

$$\frac{d^4 w}{dx^4} - \frac{E\delta}{Dr^2} w = \frac{p}{D} - \mu \frac{N_x}{rD}$$

(9)

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Some technical applications ...

Four types of boundary conditions encountered in practice are mentioned. If the length of the shell is considerable, it is appropriate to represent w in the form

$$w = e^{-kx} (C_1 \sin kx + C_2 \cos kx) + e^{kx} (C_3 \sin kx + C_4 \cos kx) + \frac{pr^2}{E\delta} \left(1 - \frac{\mu N_x}{pr} \right) \quad (10)$$

where

$$k = \sqrt[4]{\frac{3(1-\mu^2)}{r_o^2 \delta^2}} \quad (11)$$

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Some technical applications ...

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Eq. (10) is valid when the fourth derivative of the pressure with respect to x is equal to 0. It is concluded that for the neighborhood of the edge where the origin of coordinates is situated, one can assume $C_3 = C_4 = 0$. To obtain w for the second edge the origin of the coordinates is transferred to the latter; then one can put again $C_3 = C_4 = 0$ and determine the new C_1 and C_2 from the boundary conditions. It is stated that this method is applicable to all shells, whose length $l \gg 2.5\sqrt{r_0}$. Expressions for the angle of bending of the normal and the internal force factors are derived by differentiation. A numerical example of the design is given. The author solves the general problem of a semi-infinite thin-walled cylinder loaded at the edge and subject to internal pressure, stating that the formulae derived can greatly reduce the numerical work in other problems. Three numerical examples are considered in detail. If $l < 2.5\sqrt{r_0}$ the solution of the differential equation can be written

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$$w = A_1 V_1(kx) + A_2 V_2(kx) + A_3 V_3(kx) + A_4 V_4(kx) +$$

$$3 \frac{pr^2}{E\delta} \left(1 - \frac{\mu N_x}{pr} \right) \quad (27)$$

where A_1, A_2, A_3, A_4 are new constants and $V_1(kx) = \cos k(kx) \cos(kx)$, $2V_2(kx) = \cosh(kx) \sin(kx) + \sinh(kx) \cos(kx)$, $2V_3(kx) = \sinh(kx) \sin(kx)$, $4V_4(kx) = \cosh(kx) \sin(kx) - \sinh(kx) \cos(kx)$. If $x = 0$ all these functions become zero with exception of $V_1(0) = 1$ (which simplifies the determination of the constants). The author considers in detail the determination of the constants from boundary conditions, giving the derivation of formulae for one case and tabulated formulae for seven other cases important in prac-

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Some technical applications ...

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tice. Graphs of 18 auxiliary functions required for computing the constants are given. Three numerical examples are discussed in detail: Design of the cylindrical section of a pump, of the cylindrical wall of turbine rotor, and of a cylindrical tool socket of a lathe for fixing (it is stated that the design methods proposed for the latter example by other authors are complicated and contain errors). To determine the temperature stresses it is assumed that the temperature varies linearly across the thickness of the shell from t_1 at the internal surface to t_2 at the external one. Putting $t_0 = (t_1 + t_2)/2$, the solution of the differential equation for long shells is

$$w = e^{-kx}(C_1 \sin kx + C_2 \cos kx) + \frac{pr^2}{E\delta} \left(1 - \frac{\mu N x}{pr}\right) + \alpha t_0 \quad (56)$$

Card 5/ β_3

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Ca

Röntgenographic investigations of natural and mechanically deformed plant fibers. I. I. Beien'ko and A. N. Boyarkina. *Tek. Phys. U. S. S. R.* 5, 441-64 (1969) (in German); *J. Tech. Phys. (U. S. S. R.)* 6, 1089-1105 (1969).—Ramie, flax and cotton fibers were subjected to mechanical distortions, and the changes in the submicroscopic structure were detd. by the magnitude of the parameter of the crystal lattice of cellulose, the spreading of the interference lines on the x-ray diagram, the size of the microfibrils and the change of the angle of inclination of the structure element on the fiber axis. H. Gershinowitz

ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

PA 60T47

USSR/Medicine - Growth, Plants
Medicine - Growth - Experimental Studies
Jul 1947

"New Quantitative Method for Determining the Activity
of Growth Substances," A. N. Boyarkin, 3 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVII, No 2

Determination not based solely on sensitivity of
coleoptile. Describes process of test: development
of coleoptile, its preparation; setting of coleoptile
in an active solution; measurement, and determination
of activity. Experiments conducted at Laboratory of
Growth and Water Regime of Institute of Plant Physiol-
ogy imeni N. A. Timiryazev, Academy of Sciences, USSR.
Submitted by Academician N. A. Maksimov, 19 Feb 1947.
60T47

BOYARKIN, A. N.

PA 51T42

USSR/Medicine - Growth

21 Mar 1948

Medicine - Experimental Studies

"Some Improved Methods of Quantitative Determination of the Activity of Growth Substances," A. N. Boyarkin, Lab Growth and Water Regime, Inst Plant Physiol imeni K. A. Timiryazev, Acad Sci USSR, 2 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 9

Authors discussed methods to study activity of growth substances in previous article. They describe further studies and results of research on patients. Explain methods used. Submitted by Academician N. A. Maksimov, 24 Jan 1948.

51T42

BOYARKIN A.N.
STRUGGER, Siegfried; BOYARKIN, A.N. [translator]; GENKEL', P.A., profes-
sor, redaktor; SIDOROV, B.N., redaktor; SHAPOVALOV, V.I.,
tekhnicheskiy redaktor.

[Practical study on the physiology of plant cells and tissues]
Praktikum po fiziologii rastitel'nykh kletok i tkanei. Perevod
s nemetskogo A.N. Boiarkina. Pod red. i s predislovien P.A.
Genkelia. Moskva, Izd-vo Inostrannoi lit-ry, 1953. 277 p.
(Plant cells and tissues)

BOYARKIN, A.N. ; KUZNETSOVA, M.S.

Structure of the globule of rubber-bearing plants. Trudy
Inst. fiziol. rast. 8 no.1:345-353 '53. (MLRA 6:12)

1. Institut fiziologii rasteniy im. K.A.Timiryazeva Akademii
nauk SSSR. (Rubber plants)

The structure and the physiological activity of substituted phenylacetic and naphthylacetic acids. N. N. Melnikov, R. Kh. Turetskaya, Yu. A. Baskakov, A. N. Borovkin, and M. S. Kuznetsova. *Doklady Akad. Nauk S.S.S.R.* 89, 953-6 (1953). Introduction of halogen into the ring of $\text{PhCH}_2\text{CO}_2\text{H}$ increases the physiol. activity, which is greatest with Cl; Br is less active; iodine in the p -position does not increase activity. Most active are the 2-halo, least active the 4-halo derivs., while the 3-halo derivs. are intermediate. This is the reverse order of activity in comparison with phenoxyacetic acids. Introduction of a 2nd halogen does not change the physiol. activity, while a 3rd halogen can either reduce or increase activity. A Me group in the p -position reduces the activity, and 3 Me groups reduce it very much. A smaller decrease in activity is caused by a p -MeO group. Halogenation of m -MeC₆H₄CO₂H causes increased activity, the greatest activity resulting from 4-substitution, and lesser activity from 2-halogenation. With 2,4-D as the standard which gave 100% increase of wheat coleoptile growth at 1 mg./l. concn., and heteronuxin as the standard which gave 100% increase of kidney bean root growth, the following physiol. results were obtained in plant tests; (in above order, with 1, 10, 50 and 100 mg./l. concns. tested for the wheat growth, and 10, 50 and 100 mg./l. concns. for the kidney bean growth). Substituted phenylacetic acids (substituents, given): H, m.

78°, -2%, +48%, —, —, +4%, 0%; o -Cl, m. 95°, +70%, +84%, —, +6%, +150%, —; m -Cl, m. 74°, +0%, +61%, —, —, +82%, +280%; p -Cl, m. 106°, +13%, +71%, —, —, +65%, +91%; o -Br, m. 104°, +7%, +71%, —, —, +33%, +101%; p -Br, m. 114°, +2%, +80%, —, —, 0%, +8%; p -I, m. 135°, -4%, -6%, —, 0%, +21%; 2,4-di-Cl, m. 131°, +10%, +80%, —, +68%, +163%; 2,5-di-Cl, m. 105°, +13%, +80%, —, +30%, +120%; 2,3,4-tri-Cl, m. 138°, +40%, +71%, —, —, +160%, -80%; 2,4,5-tri-Cl analog, m. 126°, 0%, +58%, —, —, +98%, +100%; p -MeO, m. 83°, —, +20%, +20%, —, 0%, 0%; p -Me, m. 92°, —, +8%, +0%, —, 0%, 0%; 4,3-ClMe, m. 83°, +22%, +78%, —, —, +7%, +69%; 4,3-BrMe, m. 81°, +20%, +71%, —, —, 14%, +90%; 6,3-ClMe, m. 86°, -2%, +40%, —, —, 0%, -25%; 6,3-BrMe, m. 82°, -8%, +59%, —, —, +66%, +69%; 2,4-ClMe, m. 106°, +13%, +44%, —, —, +12%, +33%; 3,4-Me(MeO), m. 127°, —, +19%, +34%, —, 0%, 0%; 2,4,5-tri-Me, m. 117°, —, +8%, -0%, —, -21%, -25%; 2,4-Me(MeO), m. 107°, —, -12%, +25%, —, 0%, 0%. In substituted naphthylalkylcarboxylic acids it was shown that removal of CO₂H from the ring by more than 1 C atom reduces the physiol. activity and the compds. with an acid group at the 1-position on C₁₀H₇ skeleton are the only active ones; substances with 2-substitution are inactive. Substitution of alkyl groups or MeO groups into the C₁₀H₇ ring leads to sharp decline in activity. The following results were obtained in biol. tests (same standards as above): Substituted 1-naphthalenecarboxylic acids (substituents given): H, m. 131°, +77%, +169%, —, —, +92%, —; 4-MeO, m. 144°, +2%, -12%, —, +10%, +37%, +9%; 4-Me, m. 148°, +1%, +1%, —, +4%, +36%, +24%, -10%; 4-Et, m. 120°, +9%, —, —, +0%, +0%, +27%; 4-Pr, m. 119°, -5%, -7%, —, +24%, +50%, +33%; 4-Bu, m. 110°, —, -14%, —, +31%, +20%, +33%. 1-C₁₀H₇COCH₂CH₂CO₂H, m. 132°, +9%, +60%, —, —, —; 1-C₁₀H₇(CH₃)₂CO₂H, m. 160°, +0%, +40%, —, —, —; 2-C₁₀H₇COCH₂CH₂CO₂H, m. 174°, -25%, -0%, —, —, —; 2-C₁₀H₇(CH₃)₂CO₂H, m. 100°, -3%, -5%, —, —, —. Most of the above acids were prepd. by the Willgerdt reaction others through the nitriles from the corresponding benzyl halides. G. M. Kosolapoff